

1. A headgear cooling liner comprising:
a liquid permeable pocket partition containing a liquid-absorbing material;
and
a ventilation portion adjacent to the pocket partition that establishes an air
5 space to provide air ventilation.

2. A headgear cooling liner as recited in claim 1, wherein the air ventilation
enables an evaporation process to occur.

10 3. A headgear cooling liner as recited in claim 1, wherein the material is a
polymer.

4. A headgear cooling liner as recited in claim 3, wherein the polymer is
polyacrylamide.

15 5. A headgear cooling liner as recited in claim 1, wherein the pocket partition
further includes a cushioning device.

20 6. A headgear cooling liner as recited in claim 5, wherein the cushioning device
comprises a rubber material.

7. A headgear cooling liner as recited in claim 1, further comprising a second
liquid permeable pocket partition containing the liquid-absorbing material, wherein the

pocket partitions are oriented in a parallel orientation, and wherein the ventilation portion couples and separates the pocket partitions.

8. A headgear cooling liner as recited in claim 1, further comprising a second
5 liquid permeable pocket partition containing the liquid-absorbing material, wherein the pocket partitions are oriented in a transverse orientation, and wherein the ventilation portion couples and separates at least some corresponding portions of the pocket partitions.

9. A headgear cooling liner as recited in claim 1, further comprising an
10 attachment mechanism configured to couple the headgear cooling liner to an interior portion of a headgear, wherein the coupling mechanism is coupled to at least one of:

- (i) the pocket partition;
- (ii) the ventilation portion; and
- (iii) a rim coupled to at least one of the pocket partition and the ventilation
15 portion.

10. A cooling system comprising:
a headgear having an interior portion and an exterior portion;
a headgear liner selectively coupled to the interior portion of the headgear,
wherein the headgear liner comprises:

5 a liquid permeable pocket partition containing a liquid-absorbed material; and

a ventilation portion adjacent to the pocket partition that establishes an air space to provide air ventilation.

10 11. A cooling system as recited in claim 10, wherein the air ventilation enables at least a portion of the liquid absorbed by the material to evaporate.

12. A cooling system as recited in claim 10, wherein the interior portion is an interior surface of the headgear.

15

13. A cooling system as recited in claim 10, wherein the interior portion is a harness coupled to the headgear.

14. A cooling system as recited in claim 10, wherein the liquid-absorbed material
20 is a polymer.

15. A cooling system as recited in claim 14, wherein the polymer is polyacrylamide.

16. A cooling system as recited in claim 10, wherein the pocket partition further includes a cushioning device.

- 5 17. A cooling system as recited in claim 10, wherein the headgear is one of:
- (i) a military helmet;
 - (ii) a construction hard hat; and
 - (iii) a recreational helmet.

18. A method for providing a headgear cooling system, the method comprising:
providing a headgear liner having a liquid permeable pocket partition and a
ventilation portion;

inserting a liquid-absorbing material into the pocket partition, wherein when a
liquid is applied to the pocket partition, at least a portion of the liquid is absorbed into
the material; and

securing a coupling mechanism onto a portion of the headgear liner for use in
coupling the headgear liner to a headgear for use by an individual, wherein when
coupled to the headgear, at least a portion of the headgear liner establishes an air
space to provide air ventilation when the headgear is used by the individual.

19. A method as recited in claim 18, further comprising using the coupling
mechanism to secure the headgear liner to the headgear.

20. A method as recited in claim 19, further comprising at least one of:

(i) cooling the liquid after the liquid is applied to the pocket partition and
absorbed by the material, and prior to use of the headgear by the
individual; and

(ii) freezing the liquid after the liquid is applied to the pocket partition and
absorbed by the material, and prior to use of the headgear by the
individual.